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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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IBM_SVL c/o Sawyer Law Group, P.C. P.O. Box 51418 Palo Alto, CA 94303			EXAMINER COLAN, GIOVANNA B	
			ART UNIT 2162	PAPER NUMBER
			NOTIFICATION DATE 08/24/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@sawyerlawgroup.com

Office Action Summary	Application No. 10/620,857	Applicant(s) PAYTON ET AL.	
	Examiner GIOVANNA COLAN	Art Unit 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-19,22-36 and 39-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-19,22-36 and 39-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/30/2009, 06/10/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is issued in response to applicant filed request for continued examination (RCE) on 07/06/2010.
2. Claims 1, 7, 13, 18, 24, 30, 35, 41, and 47 were amended. No claims were added. Claims 3 – 4, 20 – 21, and 37 – 38 were canceled.
3. Claims 1 – 2, 5 – 19, 22 – 36, and 39 – 54 are pending in this application.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 01/03/2009, and 06/10/2008. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Continued Examination Under 37 CFR 1.114

5. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/11/2006 has been entered.

Response to Arguments

6. Applicant's arguments filed 07/06/2010 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1 – 2, 5 – 19, 22 – 36, and 39 – 54 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The term "query assist too for assisting..." recited in claim 1 appears to be directed to software only in view of the specification of the disclosure (see: [0028], "The query assist tool 14 of the present invention is software residing between the application software 16 and the RDBMS middleware 10"; specification). Also, the claimed invention is addressed to an "apparatus" is addressed to "means for visually displaying", "means for visually selecting", and "means responsive" that is not a hardware but is software. Accordingly, the claim becomes nothing more than sets of software instructions which are "software per se".

Claim 18 recites a "method for assisting a user...". However, the method/process fails to: (1) tied to another statutory class (such as a particular

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apparatus) and (2) transform underlying subject matter (such as an article or materials) to a different state or thing (*In re Bilski*, 88 USPQ2d 1385 (2008); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)). Therefore, the method is not patentable eligible processes under 35 USC § 101 since they are directed to non-statutory subject matter.

Claim 35 fails to be limited to embodiments which fall within a statutory category. Specifically, the claims recites "an article of manufacture comprising a computer program carrier ..." which appears to be directed to transmission/communication media. The recited "computer program carrier" does not appear to be a process, machine, manufacture, or composition of matter. See, e.g., *In re Nuitjen*, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)("A transitory, propagating signal like *Nuitjen's* is not a process, machine, manufacture, or composition of matter.' ... Thus, such a signal cannot be patentable subject matter.").

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1 – 2, 5 – 8, 15 – 19, 22 – 25, 32 – 36, 39 – 42, 49 – 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banning et al. (Banning hereinafter) (US Patent No. 5,421,008) in view of Murray et al (NPL: “Kaleidoquery: A Visual Query Language for Object Databases”, ACM Press 1998).

Regarding Claims 1, 18, and 35, Banning discloses an article of manufacture comprising a computer carrier readable by a computer and embodying one or more instructions executable by the computer, the computer program providing a query assist tool for assisting a user in creating and/or editing a query statement (Col. 5, lines 6 – 11, Banning), the query assist tool having a user interface for building queries and a query model definition to populate a query model instance with elements of the created query statement (Col. 5, lines 16 – 18, Banning), the user interface comprising:

a) program instructions for visually displaying a search condition of a query statement in a first display area of the user interface (Fig. 2, item 53, Col. 7, lines 58 – 65, Banning); and

b) program instructions for visually selecting two or more predicates of the displayed search condition for grouping (Fig. 2 and 14, item 51 and 574/573, Col. 8, and 30, lines 6 – 12 and 7 - 11, Banning¹); and

program instructions for visually indicating the grouping in the first display area in response to selection of the two or more predicates (Fig. 14, see window with title “Row Cond”, Col. 30, lines 7 – 13, “...To rebuild a logical relationship for linking a predicate, a user selects the Group Action 572 of FIG. 14. Then, the user selects the nodes (predicates or logical operators) to group together. In this example, YEAR>25 574 and SALARY>60000 576 are selected. To reflect the selection process, the two entries are reverse-videoed as shown at 574 and 576 of FIG. 14...”, window with title “Row Cond” in Fig. 14 corresponds to the first display area claimed, Banning).

However, Banning is silent with respect to a grouping comprising indentation, adjacent positioning, or delineation by a symbol. On the other hand, Murray discloses a method including means for indicating grouping comprising one or more of the group comprising: indenting the grouped predicates relative to other predicates of the search condition (Page 251 and 253, para.46 and 61, lines 4 – 10 and 4 – 5; respectively, wherein “...max(select p.salary from p in People where p.name = ‘Smith’...” shows

indenting relative to "...and p. employer in (select c from c in Companies where c.location = 'England')))...", Murray); positioning the grouped predicates adjacent to each other (Page 253, para. 61, line 5, wherein "part2:x.age> 40.." shows positioning adjacent to "...x.age<65...", Murray); and delineating the group with parenthesis or an equivalent symbol (Page 251 and 253, para. 46 and 61, lines 8 – 10 and 6 – 7, "... (select... 'England') ..."; respectively, Murray). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Murray, including the teachings of indentation, adjacent positioning, and group delineation with symbols, to the system and method of Banning to provide a highly organized and structured method to display queries, and provide novice query language users with a clear and understandable view of complex queries, for example, nested ones. Skilled artisan would have been motivated to do so, as suggested by Murray (Page 256, para. 12, lines 1 – 4, Murray), in order to organize the structures and ordering results that support a more dynamic evolution of queries.

Furthermore, the combination of Banning in view of Murray discloses:

wherein an order in which the group is evaluated is controlled in a designated manner (Page 251, Fig. 9: "Path expression utilizing", and 252, paragraph under section "Ordering the results": "...the sort operator", and "method for sorting", wherein the step of using a sorting method with a sort operator implies that the step is controlled in a designed manner as claimed; Murray).

¹ Predicates are considered to be elements, such as, DEPT, SALARY, YEAR, JOB, DEPT, and

Regarding Claims 2, 19, and 36, the combination of Banning in view of Murray discloses an article of manufacture, wherein the program instructions for selecting further comprises program instructions for highlighting the two or more predicates (Fig. 2, item 51, DEPT and MANAGER, Col. 8, lines 10 – 12, Banning).

Regarding Claim 5, 22, and 39, the combination of Banning in view of Murray discloses all the limitations as disclosed above including a selecting predicates for grouping. In addition, the combination of Banning in view of Murray discloses a system and method for confirming the delete operation handled by a user. However, in an alternative embodiment, the combination of Banning in view of Murray discloses a confirmation of operation (Fig. 12, item 536, Col. 1, lines 59 – 62, Banning). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Banning in view of Murray to include a confirmation of selection of the delete operation to be used with grouping procedure. In addition, one of ordinary skill in the art at the time the invention was made would have been motivated to do so, in order to give users the capacity of validate and corroborate the selection of two or more grouped predicates for grouping.

MANAGER. This predicates are listed in the displayed search condition of Banning's disclosure (Fig. 2, item 53). In addition, other predicates would be YEAR>25 and SALARY>60000.

Regarding Claims 6, 23, and 40, the combination of Banning in view of Murray discloses an article of manufacture, wherein the program instructions for indicating grouping are responsive to selection confirmation (Col. 29, lines 62 – 64, Banning²).

Regarding Claims 7, 24, and 41, the combination of Banning in view of Murray discloses an article of manufacture, wherein the program instructions for confirming further comprise program instructions for one or more of the group comprising: selecting a confirmation button displayed in a second display area, entering a mouse click, entering a keystroke, and the equivalent of any of the foregoing (Fig. 12, item 536, Col. 29, lines 59 – 64, Banning).

Regarding Claims 8, 25, and 42, the combination of Banning in view of Murray discloses an article of manufacture, further comprising program instructions for causing a model instance to be updated with the selected grouping upon confirmation (Col. 29, lines 62 – 64, Banning³).

Regarding Claim 15 – 16, 32 – 33, and 49 - 50, the combination of Banning in view of Murray discloses all the limitations disclosed above including displaying query predicates in a first display area (Fig. 2, Col. 2, lines 54 – 57, Banning). However, the

² Banning discloses how the delete is completed when the user clicks ok. Because of the reasons explained in claim 5, the action of deleting after the user clicks on the confirmation window would correspond to indicating grouping after the selection confirmation.

³ Banning discloses that after the user performs the confirmation, the update is performed in the system (Col 29, lines 62 – 64). In addition, Banning discloses that after the user selects the grouping of the predicates, the update of the selection is performed (Fig. 14, items 574 and 576).

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combination of Banning in view of Murray is silent with respect to displaying each search predicate in a different line of the first display area (Claims 15, 32, and 49), nor displaying each operator in a separate line of the first display area (Claims 16, 33, and 50). On the other hand, the combination of Banning in view of Murray discloses a system and method for displaying predicate queries including displaying operators and predicates in different lines of a display area (Page 251, para. 46, lines 1 – 10, Murray). It would have been obvious to one of ordinary skills in the art at the time the invention was made to display search predicates and operators in separate lines of the display area in order to provide users with better visualization of the predicates and operators of the queries.

Regarding Claim 17, 34, and 51, the combination of Banning in view of Murray discloses an article of manufacture, further comprising program instructions for receiving a query statement from an application for populating the interface (Col. 4 and 5, lines 57 – 64 and 6 – 11; respectively, Banning).

Regarding Claim 52, the combination of Banning in view of Murray discloses a query assist tool further comprising:

means for displaying at least a portion of the query statement in a second display area (Fig. 2, item 56 and 57, Col. 8, lines 19 – 22, Banning).

Regarding Claim 53, the combination of Banning in view of Murray discloses a method further comprising:

displaying at least a portion of the query statement in a second display area (Fig. 2, item 56 and 57, Col. 8, lines 19 – 22, Banning).

Regarding Claim 54, the combination of Banning in view of Murray discloses an article of manufacture further comprising:

program instructions for displaying at least a portion of the query statement in a second display area (Fig. 2, item 56 and 57, Col. 8, lines 19 – 22, Banning).

12. Claims 9 – 14, 26 – 31, and 43 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banning et al. (Banning hereinafter) (US Patent No. 5,421,008), in view of Murray et al (NPL: “Kaleidoquery: A Visual Query Language for Object Databases”, ACM Press 1998), and further in view of Goldberg et al. (Goldberg hereinafter) (US Patent Application Pub. No. 2005/0004911 A1).

Regarding Claims 9, 26, and 43, the combination of Banning in view of Murray discloses all the limitations as disclosed above including grouping query predicates based on users selection and a method for selecting grouped predicates (Col. 29, lines 56 – 59, Banning⁴). However, the combination of Banning in view of Murray is silent with respect to using the selecting method for grouped predicates for ungrouping. On

⁴ By clicking on the AND node, user is selecting the grouped predicates: YEAR> 25 and SALARY>60000.

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the other hand, Goldberg discloses a graphical condition builder for facilitating database queries including ungrouping grouped predicates (Fig. 8, item 804, Page 9, [0092], lines 4 – 8, Goldberg). It would have been obvious to one of ordinary skills in the art at the time the invention was made to add the teachings of Goldberg, including ungrouping grouped predicates, to the system and method of the combination of Banning in view of Murray to provide a way to reverse or undo operations performed by users, such as grouping. Skilled artisan would have been motivated to do so to give users advanced capabilities, such as, fixing incorrect grouping of predicates.

Regarding Claims 10, 27, and 44, the combination of Banning in view of Murray and further in view of Goldberg combination discloses an article of manufacture, further comprising program instructions for removing the indications of grouping from the first display area in response to the step of selecting grouped predicates (Fig. 12, items 532 and 536, Col. 29, lines 56 – 64, Banning; Fig. 8, items 804 and 802, lines 4 – 8, Goldberg).

Regarding Claims 11, 28, and 45, the combination of Banning in view of Murray and further in view of Goldberg discloses all the limitations as disclosed above including a selecting grouped predicates for ungrouping (Fig. 8, item 804, Page 9, [0092], lines 4 – 8, Goldberg). In addition, the combination of Banning in view of Murray and further in view of Goldberg discloses a system and method for confirming the delete operation (Fig. 12, item 536, Banning). It would have been obvious to one of ordinary skills in the

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art at the time the invention was made to modify the combination of Banning in view of Murray and further in view of Goldberg teachings related to confirmation of selection of the delete operation to be used to the ungrouping procedure of the combination of Banning in view of Murray and further in view of Goldberg. In addition, one of ordinary skill in the art at the time the invention was made would have been motivated to do so, to give users the capacity of validate and corroborate the selection of two or more grouped predicates for ungrouping.

Regarding Claims 12, 29, and 46, the combination of Banning in view of Murray and further in view of Goldberg discloses all the limitations as disclosed above and furthermore discloses an article of manufacture, further comprising program instructions for removing the indications of the grouping from the first display area in response to selection confirmation (Fig. 12, items 532 and 536, Col. 29, lines 56 – 64, Banning; Col. 29, lines 62 – 64, Banning⁵; Fig. 8, items 804 and 802, Page 8, [0092], lines 4 – 8, Goldberg).

Regarding Claims 13, 30, and 47, the combination of Banning in view of Murray and further in view of Goldberg discloses all the limitations as disclosed above and furthermore discloses an article of manufacture, wherein the program instructions for confirming further comprise program instructions for one or more of the group comprising: a selectable button displayed in a second display area, a mouse click, a

keystroke, and the equivalent of any of the foregoing (Fig. 12, item 536, Col. 29, lines 59 – 64, Banning).

Regarding Claims 14, 31, and 48, the combination of Banning in view of Murray and further in view of Goldberg discloses all the limitations as disclosed above and furthermore discloses an article of manufacture, further comprising program instructions for updating a model instance with the selected ungrouping upon confirmation (Col. 29, lines 62 – 64, Banning⁶; Fig. 8, items 804 and 802, Page 8, [0092], lines 4 – 8, Goldberg).

Response to Arguments

13. Applicant's arguments that the applied art fails to disclose the amended limitation: "wherein an order in which the group is evaluated is controlled in a designed manner" have been fully considered but they are not persuasive.

The applied art does disclose the amended limitation (see: rejection of claims 1, 18, and 35, discussed in this Office Action above).

14. Applicant argues that the applied art fails to disclose; "visually indicating the grouping in the first display area by indenting the grouped predicates relative to other

⁵ Banning discloses how the delete is completed when the user clicks ok. Because of the reasons explained in claim 5, the action of deleting after the user clicks on the confirmation window would correspond to indicating grouping after the selection confirmation.

⁶ Banning discloses that after the user performs the confirmation, the update is performed in the system (Col 29, lines 62 – 64).

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predicates of the search condition positioning the grouped predicates adjacent to each other, delineating the group with parenthesis or an equivalent symbol".

Examiner respectfully disagrees. The applied art does disclose: visually indicating the grouping in the first display area by indenting the grouped predicates relative to other predicates of the search condition positioning the grouped predicates adjacent to each other, delineating the group with parenthesis or an equivalent symbol (Fig. 14, see window with title "Row Cond", Col. 30, lines 7 – 13, "...To rebuild a logical relationship for linking a predicate, a user selects the Group Action 572 of FIG. 14. Then, the user selects the nodes (predicates or logical operators) to group together. In this example, YEAR>25 574 and SALARY>60000 576 are selected. To reflect the selection process, the two entries are reverse-videoed as shown at 574 and 576 of FIG. 14...", window with title "Row Cond" in Fig. 14 corresponds to the first display area claimed, Banning; and Page 251 and 253, para.46 and 61, lines 4 – 10 and 4 – 5; respectively, wherein "...max(select p.salary from p in People where p.name = 'Smith'..." shows indenting relative to "...and p. employer in (select c from c in Companies where c.location = 'England')))...", Page 253, para. 61, line 5, wherein "part2:x.age> 40.." shows positioning adjacent to "...x.age<65...", Page 251 and 253, para. 46 and 61, lines 8 – 10 and 6 – 7, "... (select...'England')..." ; respectively, Murray).

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Giovanna Colan/
Examiner, Art Unit 2162
August 13, 2010